Rec Jan 7
ans same day p.c.
Ans Jan 16

Pentstem coccinea
Greene?

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Jany. 3d 1877

Dear E.

I have been so hard-worked that I have only this evening read your three new papers. We are so crowded, too, in Sill. Jour. that I can only give a reference-notice of them. I should like to give them a talk.

I like to see such conscientious work.

I think you will at length make that fruticosa Oak a species. I dont think it ever has those long narrow acorns, — But [illegible] Sake?

p. 6 "Pluck." should be "Pluk." i.e. Plukenet.

P. 19. "Verrière" should be "Verrières"

Juniper leaf-margins curious

Juniperus Californica. "coast-ranges" We saw it mainly in Sierra Nevada. & base

"Sitgreave's" p. 7. should be Sitgreaves' His name was Sitgreaves.

I shall to-morrow finish Utriculariae & take up Acanthaceae. The printer is on Pentstemon.

Happy New Years to you all. Ever

A. Gray

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

Rec Febr 16
ans — 24

proofsheets

My Dear Engelmann

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Feb. 13 1877

A nice, kind letter of yours of Feb. 6. —

Let us ~~[illegible]~~ note some particulars. –

"Cercidiphyllum" Quien sabe? It is Zuccarini's genus, now-a-days appended to Magnoliaceae (Schizandreae) but a most doubtful thing.

—

McNab's Conifer-things went to you, at once.

—

I have just read Flora proofs, through Asclepias — delayed by my fortnight at Washington.

—

"Gonolobus suberosus L." You are right, & I take it is R. Br. in Flora — will make it so — a slip, that, Chapman

proves that it has smooth
pod. Curtis must have been
mistaken. & Mellichamp is
all uncertain.

Your puzzling smooth
pod without angles is of
Rowlinii a. (I return it
that you may compare.

Asclepias — divisions —
Yes. But in the Flora
the Key & divisions work
in better, I hope. I have
a distinct plan — & on the
whole I think it works.
In Flora it saves ~~[illegible]~~
words & space to have
the divisions & subdivisions ~~run~~
run pretty fine.

Misprints — & worse — my
slips are pretty awful.
Thanks for corrections.
The 1st line anthers — for anthers
is a misprint.

same as p. 72. & 76

Asclepias nyctaginifolia.
Well, too much bother to introduce the ; *incid.* for the new thing, which you were not working up and I was. Parry, knowing I was working this order myself should have sent *me* the specimen.

I am glad you approve the *anther wing* characters.

The fact is you have got to work *nice*, and seize points — as about the hoods, not generally to be relied on, else Asclepias would take in all our non-volubile Asclepiadeæ and all the Cape ones.

Well, it is a fault, I suppose, but I like to work in subsidiary characters, as well as the more weighty over.

I cannot find any "Gregg's 784" where can I have put it?

Remember that I shall be on Convolvulaceae one of these days, and crying loud for Cuscuta

Ever yours

A. Gray

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

Dear E. March 1.

Gregg. 784, Rec. March 5th 1877
An. 28

I have not seen this before. If I have it, it is wholly misplaced. Note that there is a short ascending tooth on the stalk of the pollinium, which is the mark of Oxypetalum. But this is small. If Bentham did not regard that, I think he would put it in his Vincetoxicum. But it has peculiar characters. The specimen, I believe, is to be returned to you. Shall I send it to Bentham, and ask him what he would make of it? The 1st flower I took off to soak had all the insides eaten out. I have examined only one other.

—

Gentiana Wislizeni! Better late than never! I was just reading proof of Gentianaceae up to the first part of the Gentianellas. In the next proof I will work in G. Wislizeni. Pity I had it not before.

I give you notice that I am going on straight in the order of

Hook. & Benth. — that I
shall to-morrow give out
to printer some of Polemoniaceae
I keep one compositor going on
steady. I am now revising
my MSS. in Boraginaceae, &
then have to do Convolvulaceae,
the only tough ~~[illegible]~~ thing left to do. —

I mail you a set of
last proofs up to p. 86, &
will soon send rest of Asclepiads
and so on. Keep the file
safely — make notes, & return
to me — page & page —

I wish you were here, on the
spot.

I doubt if I have any partic=
ular new Cuscuta matter.

Do them after the model of
the proofs. Divide up &c
and do not repeat in spec. descr.
what is in the sections & subsections.

I am unwell to-day, cold
coming on? the 1st of the season.

I have no doctrine that there
must always be terminal bud, in
esse, — tho. I doubt about actual
forking of terminal bud as a mode
of explanation of various things.

I had forgotten you were to do none
in Gentiana — Could not wait, any
way,

Yours ever

A. G.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

Rec'd March 9th
ans — 28

My Dear E.

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

March 5. 1877

Your several Pneumonanthe-missives are in hand. — I had to wait till I got proofs from the printer — which to-day I got up to all but a few of the last Pneumonanthes. I have worked in the G. Wislizeni — glad to get it in time, & collated all your notes & seeds of the other species. Tho' I do not make the seeds prominent in the subdivisions, I had worked out (thanks to your aid when here) all the seeds pretty well, & the differences no greater than between some of your sketches here, & the new seeds. I will send you revised proofs. — The seed-characters work well but those G. affinis, — your Oregana (which I restore), & puberula vary into each other, & those of G. Elliottii, Saponaria & Andrewsii have no constant difference

I find a very little between Parryi & Calycosa, — the former blunter.

I restore Menziesii

Yours in haste & very truly

Asa Gray

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

My brother-in-law, Loring is procuring some Mound pottery from your son, and he wishes me to interest you in the matter. The pottery is for the Boston Art Museum, of which Mr. Loring is director and a trustee, and to which he gives all his mind and soul, and is most anxious to have every good thing in it.

I believe our Peabody Museum has arranged for a share of this pottery, long ago.

A. G.

Rec 27 Apr

My dear E.,

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

April 24 1877

At this moment the Convolvulaceae are off my hands — minus Cuscuta, and the printer is on Boraginaceae — the preceding family, so I want Cuscuta. Looking over to see if I have any unnamed — I find a very little — & those I send you, in a mail-parcel to-day.

My last from you is March 27. Mrs. Gray has meanwhile sprained her ankle and has been much laid up — now hobbles round, & drives out. So we have lost dear old Braun! Was it pneumonia?

I will to-day send the mss Asclepiad to Bentham, & tell him to return a part. That will do for us.

Well, next time you want any New Hampshire plants — let them be sent to me on approval first

Watson & Sargent are as busy as ever.

Yours ever

A. Gray

Hurry up the Cuscuta!

A. G.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

Rec 25 May
ans 28 May

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

May 21 1877

Dear E.,

Here is Bentham's response on the Grass 784. I have not time now to look into it to see if the structure is as he represents.

Thurber is very ill, bleeding from lungs.

Yours ever A. G.

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

Rec'd June 12th
Ans — 21

My Dear Engelmann

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

June 9 1877

I have been trying for a week or two to find a moment in wh. to write you a line.

I sent you a message by George. He says that you & Mrs. E. ~~should~~ should get away some-where into a cool place for summer.

Now Dr. Hooker (if nothing more prevents) is coming over soon — be here early in July. He & I are to be put on Hayden's staff — semi-officially, and make

Rocky Mt. reconnoissance.
Go first to Colorado —
as far south & west as there
narrow rail-roads will take
us, climb Grays & Torreys
Peaks etc. & then
go north. —

Now you & Mrs E. go
to some of those nice
places, Colorado Springs,
Manitou, or wherever —
and then let us roam
together over the country.
see Cacti south on
the borders of N. Mexico —
see Abies concolor, &c. &c. —
climb a few mountains,
& have a good time.

I shall soon send you
proof of Cuscuta

I send you some
more sheets, Some
time I am to have
these sheets back, with
your annotations

Yours ever

A Gray

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

7 June '77

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.
187

Opened my letter to acknowledge yours of 5th just in:

Thanks for Solanum seeds.

Can't help you about Mr. Nat. He is, or was, at Dublin. I suppose you should have added, "Trinity College" or Dublin University.

Try him thro. Oliver of Kew, who will know or find out.

— Yes, DC.'s article takes the ground I have always insisted on. I have an Article (notice) in Amer. Jour. which will suit you. Agave. &c

As to sub-generic names, &c we will talk that at once. —

A.G.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

Rec June 16th
ans — 21

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

June 12 1877

My Dear E.

Dr. Hayden is delighted at the prospect of having you on our expedition through Colorado, he means to be accompanied by one of his best men. a Mr. Stevenson — to take all care of us, and he will very likely be with us too.

The President of the Road has given me passes for our party, including you, from Kansas City to Pueblo. Dr. Lamborn, of that Denver narrow-gauge road, is now here. —

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

and will post *you* over every bit of their road. He is to get passes for us all — you included — unless you have them from St. Louis to Kansas City. I am daily expecting to hear from Hooker when he will start, — will let you know. But, on or before middle of July, expect us at *St. Louis*, and have your traps packed. We will have a jolly time. Yours ever

Asa Gray

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Wednesday morning.

Dear E. Yours of the 10th is here.

Mellichamp has sent me oceans of the Bradburia hirsuta flowers, — & now has sent B. pubescens — also to you, he says.

I am glad you have settled the char. of Hickory. It makes those nuts you saw here — (& took some) intelligible. Make a little paper on it.

I think I have sent the Brophisia you speak of — unless confounded with Sphaerocarpus.

Yours ever.

A. G.

I expect in day or two to send you proof of Cuscuta — so that we can print that off. Watson took charge of the Leguminosae of your herbarium, — & he is off for a week's vacation. I can't see the Baptisia till he comes home.

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

June 25 — 1877
Monday Evening.

Rec'd June 29th
Ans — 30

My Dear E.,

I was at Beverly over Sunday, so did not get your letter till this morning.

I am situated very much as you are.

If I were left alone I should get these Gamo=petalae all printed off ~~by~~ by end of summer — and it would be a good deal in my pocket — or rather less out of it for a consid=erable time.

But I had always promised Hooker that when he would come, I would take a run with him; and so it comes about;

unless something prevents,
and I shall probably
know by next mail—
perhaps to-morrow— Hooker
will sail on the 28th.—

In that case, as no
time is to be lost— we
hope to leave here on
the 12th— at evening. Phila-
delphia on the 14,— and
Cincinnati evening of 16—
— or thereabouts. Con-
sidering the season &
how much is before us—
(for we may very likely
go to California! too), we
must stop over only a
day or so at St. Louis.

Genl. Strachey (E. Indian
traveller, &c.) & wife are
coming with Hooker. & will
be with us as far as Colorado,

I have just passes enough
over the road from Kansas City

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

to Pueblo for this party;
that
+ ~~one is reserved for you~~
i.e. passes for Porter,
self, & three friends;
that is to be, my wife
& you & yours, if you will
have it. If you
wish, I shall give
these passes to Gen.
Strachey & wife,
since Dr. Lamborn
has given them the
the Pueblo & Denver.

If you only go,
I will ask for one
more pass — but I don't
care to ask for 2 more,
and the Stracheys have
no claim for them.
So I want to know
what you will do before
I leave home.

Dr. Lamborn, who is

desirous you should go.
will probably see you
soon; I have given him
your address.

Parry will be here a
week hence. Sargent
wants him to collect ~~con~~
Coniferous seed for him
in Rky. Mt. in Sept. So
he *may* also be with us.

It will be very jolly to
have you, — such a
botanical team as we
will make!

Hooker's idea was to
go to *Yellowstone*; I
dissuaded from that &
got *Colorado* substituted —
which — as it turns out, is well,
It suits Hayden better
too. He puts us *quasi* on
his Survey, — and we will
make him a *Report* — all
three of us joining in it.
Ladies we can leave at
good places when we are doing
anything rough. Paper fills
Ever yours Asa Gray.

Rec July 6
ans — 7

My Dear E.,

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

July 3 1877

The things announced — (Gentianaceae &c.) have not come yet.

You are going to have all N. Am. Loranthaceae & Euphorbiaceae to do for my Flora, as soon as you can ~~set~~ get ready to set about it. So what good in a piece-meal work on the few Californian, which, probably, Watson has done pretty well.

So that need not stand in the way of your having a month's holiday.

The idea is that we will pass Sunday 15th in Cincinnati, and leave there Sunday night for St. Louis — so reach there some time

Monday 15th —

Your letter to Watson seemed to imply we might lose your company.

I think you should go with us to Colorado. Further I do not know that I can secure any facilities, but I understand that D. Lamborn will see to you on his road, & I can pass you from Kansas City to Pueblo.

But if you go, and want to come back that way, please telegraph me so that I can secure a return pass. I have none, and do not wish to ask for it unless sure it will be needed.

Yours ever,

Asa Gray

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

Dear Old E.

Rec'd July 7th
An — 7

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

July 4 1877

Never mind if you are 70. Hooker is 60. & I am between. and we are lively yet

Perhaps we young fellows may knock about rather faster than you like, — wanting to do much in a little time. But then, you need not do so much in Colorado as we. — take the easy part.

I shall be sorry if you fail us, — and, unless I ~~hear~~ hear more favorably for you, I will not ask for a return pass from Pueblo for you. But I still hope next letter will bring a change of mind.

Be sure I'll keep you posted.

Should like to go to Iron Mountain

Ever

A. G.

x1

I fear it is of no use to tell you that I hold a pass for myself & 5. from Ogden to California, & back, in the letter accompanying which you are mentioned as one of the party. For I fear the Californian part may be too swift for you.
—

Thanks for 1st proof back. I will fix it all right.

We must twine in Cuscuta, as we twine in the rest of the book.

For real accuracy we must finally come to the terms I proposed — eutropic & antitropic. We can't get watch-hand in to a good form for description of order, genus, &c —

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

Rec'd July 14th

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

July 11 1877 ?

My Dear Engelmann

Prof. Thos. C. Porter, Easton, Penn. who is working for Rothrock, wants to follow some of my Gamopetalous work; So I have told him that he will receive from you, by mail the file I have in your hands — and which he must return to me — that I may have your markings.

Please, therefore, send on the set to him, & oblige

Yours ever, A. Gray

I send with this the pp. 217–232, —

1 Engl. inch = 25.399 mm
25.4 mm
1 metr 39.37 inch

5.33 : 12 = 1

12 5.33 / 044
4.80
53

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

Rec July 24th
ans. [illegible]

21. Waiting on R. R. from Cañon City to Pueblo.

Dear E. If this flowering Euphorbia is the one you asked for I have made good specimens. The round-leaved one is on the ~~hills~~ hills, & is not yet out. — is not the one, I am sure.

We had yesterday a good day (with ~~Cañon~~ grandeur) at the Arkansas Cañon. It is grand, surely.

To-day Hooker & the Stracheys drive & don't across Wet Mt. Valley to La Veta. (2 long days) — while we, Mrs. G. Dr Hayden and I return by R. R. to Pueblo, & thence to La Veta — by ~~rail~~ sunset to-day. — To-morrow up to a camp on La Veta Pass — of Sangre de Christo Mts, which Capt. Stevenson is preparing — ~~tents~~ tents being supplied from Fort Lyon. — Our English friends begin already to feel in a hurry, & for a ~~wonder~~ wonder I am the 'hold-back' member of the party. Mrs. G. had one poor turn, & is now nicely. Sends best regards. She will write to Mrs. E. soon.

Ever A. G.

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI
BOTANICAL
GARDEN

Rec Aug 13th
ans — 20th

Salt Lake Aug. 8. 1877

My Dear Engelmann

I have yours of the 30th July, and I return enclosure. Write hereafter to the Palace Hotel, San Francisco.

I trust, & expect, that the Strike-days are over & that you will severely punish ring-leaders, Glad you have had nice weather; but you have no air like that of Colorado, & Utah. When I return I will see if I can trace the Steudel solution of Alternanthera Chinensis.

Well, much as we miss & want you, yet we should have hurried you too much. Hooker is uneasy whenever he is not in fresh botanizing ground, and hurries up, and we want to go over a good deal of ground cursorily, rather than a little thoroughly & leisurely.

I did not write you about the Oaks at Cañon City, because we had nothing new to say. We agree with you in the complete running together of the Oaks down to Undulata, There is one very large-leafed state, looking very diff. — but it is mostly on fast-growing shoots, & no doubt is a state of the "Q. alba var." of Torr. "alba" indeed!

But we did not find the entire-leaved form at the Cañon, and Brandegee said it occurred only at the mouth of the Cañon and near the City.

From Cañon City we, Mrs. Gray, Hayden & I, went in one day S. to La Veta by rail, and the next day, toward evening up to La Veta Pass, 10300 & over, & over 300 feet lower where we camped, nice tents having been provided by Fort Lyon en route, and other furnishings from Fort Garland. Abies concolor abounded — tho' ~~there~~ was more of A. Menziesii & Pinus contorta, & a good amount of P. aristata & P. flexilis. The A. Menziesii at that elevation is less prickly & sometimes almost as soft as A. Douglasii to the touch, & cones inclined to be shorter. The result is we think we can trace A. Menziesii Engelmanni into A. Menziesii. What say you to that?

Botanizing up there & in Sangre de Christo Pass good, but only moderate; nothing new, and no great variety. We enjoyed camp life very well, but after 3 days broke up, and went over to Ft. Garland, & thence, while the ladies & Gen. S. went off to a Mexican village, we had a 2 day trip up Sierra Blanca. Alpine plants same as Gray's Peak, but scanty, owing to more S. latitude and greater dryness. A longer time, & a searching of the interior of this very rough range might, & doubtless would, furnish much we did not see.

Returning from Ft. Garland to Rail-road, we went back ~~to~~ Colorado Springs & drove up to Manitou. Next day we went up Ute Pass — nothing — & looked about. Next day to Garden of the Gods — to Gen. Palmer's to early dinner, — & thence to R.R. & to Denver — Next day Denver. — Next by R.R. through Clear Creek Cañon and to Georgetown — or within a mile, & thence up to Kelso's cabin, now well kept house to sleep. Next day, Gray's Peak, & I crossed over to top of ~~Parry's~~ Torrey's: Next day, after morning botanizing, — came down to Georgetown & visited Empire City & the Peaks. — Next day, Sunday, — a restful morning & then by rail back to Denver in the afternoon & evening: Monday off at 7½ to Cheyenne, & after dinner took R. R. to Ogden, & came up here last eve'g.

To-day a broken day, sight-seeing &c. — To-morrow we, or some of us, are going to S. to American Fork Canon, up that and over a pass into Cottonwood Canon — down that — and back here — in time to go on that afternoon to Ogden & thence W. to Reno, — thence Virginia City, Carson &c — & the Trees, Yosemite, &c — We shall see, & I will let you know.

Mrs. Gray is out with the party, to see things — & Brigham Young — I will not. — She would be sending love to Mrs. Engelmann ~~& to~~ you, if here — She is very well, & enjoys this travel hugely.

I am strong as a horse too —

& ever yours

Asa Gray

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

Rec Aug 30
Ans same day

Black's Hotel,
A. G. BLACK, Proprietor.

mailed Stockton Aug 24

Yosemite, Cal., 21 Aug 1877.

My Dear Engelmann

So long without touching a pen I can hardly form letters. Did I write you from Utah? We left direct route at ~~Reno~~ Reno, — went to Carson City — with detour to Virginia city — queer place, first got hold of Pinus monophylla — but there no fruit.

I hired conveyance to take us from Carson right across Sierra Nevada, via Silver Mt. to Calaveras Big Trees — a good way for studying the ~~trees~~ tree-vegetation — and other — only all other is mainly destroyed by Drought & sheep, & the ground is powdered dust.

As we struck Pinus ponderosa
we were struck with more tapering
shape of tree & longer leaves than
that of Colorado — so diff. —
and soon, as we rose, by
the immense size of cone —
ovate, 6' long, very heavy.
The big-cone ponderosa has
less bright green & rather longer
leaves, — & cones looking quite
diff. from the ordinary Califor-
nian ponderosa, which
grows intermixed — except at
the higher levels, & has long
but narrow cones. Losing
the big one as we descended
to Calaveras, we came on it
again in the Sierra here, when
we got up to 7–8000 feet.
Here it passes for P. Jeffreyi
or Jeffreyi. Is it so? Is it
distinct? On these sides of
Silver Mt. we found P. monophylla.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
Missouri Botanical Garden

with Cones, better maturing &
this years.
We soon struck Abies concolor,
& higher A. magnifica — coming
finely, especially the latter.
Very good sp. As far as we
see the former is the S. Color-
ado A. concolor. But over
there, in the deeper woods, the
foliage gets so green above,
& the habit so like A. pectinata,
that I suspect ~~we~~ shall
run it into your ~~[illegible]~~ true A.
grandis from Mendocino Co.!
— especially as you give no other
character for it. We must
go to Mendocino Co. & see.
P. monticola abund. high up.
P. Lambertiana, only after getting
well W.—
Abies Williamsonii — on the higher
passes.
We have missed none but
P. albicaulis — which I
suspect is Calif. P. flexilis? Or

0 1 2 3 4 5 6 7 8 9 10 cm copyright reserved
Missouri Botanical Garden

stunted P. *monticola* may have been taken for P. *flexilis*. Galen Clark here knows it on the high Mts, back of here. We have been only on Sentinel Dome — shall not get higher — are going to San Francisco.

Too late for you to reach us there. But try one letter to care of Lemmon, with instructions to forward to Cheyenne, if we have to tell Lemmon we can't reach him.

We have worked very hard too hard — one continual grind.

Mrs. Gray — bears it heroically, Hooker is tough & hardy. & has enjoyed it.

Ever Yours

Asa Gray

Recd Sept 12 1877

Chico. Sept. 5th,

Dear E.

Thanks for your letter to S. Fr.

We are keeping lively — are on the way to Shasta.

What if we were to return via St. Louis; will you insure us against malaria & fever?

Want to talk Coniferae with you.

I send you a 2-leaved pine, found growing in grounds at San Jose — & here. They say Californian, but quien sabe? What is it? We cant even guess! Ever yours

Asa Gray

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

Rec 27th Sept
Ans same day

Oaks

Cambridge, Sept. 24, 1877

My Dear Dr Engelmann.

We are just back, via Niagara, Hooker and I via New York, and the former having the Sunday with Eaton at New Haven. All well and happy to get home after a prosperous and — as you may imagine laborious journey of 10½ weeks. The trip to Shasta involved long stage-coach journeys, but was most interesting. Returning to Sacramento we went on to Truckee, where Lemmon joined us by appointment, — we gave one day to Mt. Stanford and one to Tahoe — then took the overland train as it came on at midnight, and thence had no stationary bed till we reached Niagara. And we live to tell the story!

I want to tell you what we are led to think about Firs and Spruces. I will give in this my own opinions, which lie yet open, but are likely to settle down, except you convince me to the contrary on some points. Hooker comes to

cm copyright reserved MISSOURI BOTANICAL GARDEN

same conclusions, or nearly, but I will keep to my own only in this letter, & ask what you think of them, off hand. Your reply will come to hand before Sir Joseph quits.

Abies Menziesii. In Colorado all the young trees are more or less blue or glaucous, but I saw only one wild tree (in Ute Canon) which was as blue or rather white as those we raised here and think so much of. A. Menziesii seems not to be known in California, except far much north. But on or near Russian River I saw two young trees, when on railway, which must have been of this species, and a third in fruit — the cones unmistakable.

Abies Engelmanni (to which I fancy A. Sitchensis belongs) is to us the high-mountain form of A. Menziesii. If they do not just run together, we are greatly deceived. Pungency of leaf, size of cone and nature & shape of scales, & bark, &c. give us nothing stable to swear by.

Picea, i.e. Balsam Firs.

We know two good species besides the subalpina.

P. concolor is the same (as you say) as the Californian species of lower elevation. And it is the same in species as the P. grandis of Douglas (as to Hook, Fl. Bor. Am., but doubtful if Lamb. Pinus, as to cone). We did not get up to Bolander's 2 or 3 trees near the coast near Mendocino City. But we found trees plenty like them, viz, long leaves in flat spray, obtuse & mostly emarginate, green above, — about the western base of Shasta. And we traced these by every transition into the concolor form, which is mostly rather higher up. Bolander told me ~~there~~ there was

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
Missouri Botanical Garden

same transition at Mendocino, viz. into shorter, more crowded and erecter glaucous leaves. The name of this species, I suppose, is
P. grandis. — the green *pectinata* form is your grandis, — the other ~~form~~ extreme is *P. concolor.* Then comes
P. balsamea? var. *subalpina.* How did you make out this to be the original P. lasiocarpa? with Hooker's char. "leaves inch & nearly 1½ inch long, unicolor", &c — "leaves longer than in any other American species." No, it seems to me this ~~must~~ "lasiocarpa" must be another syn. of *P. grandis*. And the name *P. subalpina* is to hold if ~~it be~~ that be diff. from *P. balsamea*. By the way Hooker could not see it as diff. from P. *concolor* as it seemed to me. And I confess that in Wahsatch Mts. as we passed up from *concolor* to *subalpina*, there were ~~trees~~ which at the time I could not well say which.

The remaining distinct species is
P. nobilis. We fell on this in Shasta,

0 1 2 3 4 5 6 7 8 9 10 cm copyright reserved MISSOURI BOTANICAL GARDEN

Rec^d Sept 27 1877 2

higher than, but at upper edge mixed with grandis – var. concolor. Foliage & aspect of the spray very diff. – no mistaking it. Cones larger & with depressed – obtuse ~~apex~~ summit. We found none with bracts so large & deflexed as to cover the scales. But Muir & Sisson both said they were often so.

What will most surprize you is – that they both, independently swear that they have seen and ~~all~~ gathered all transitions between this large-bracted nobilis & the P. magnifica (= P. amabilis Murray, – whether of Douglas, who knows? – probably so). We can certify that the trees are absolutely the same. And we have seen plenty of both. – We first struck the magnifica in crossing Sierra near Silver Mt. Here no nobilis (exsert bracts) is known, But we have seen cones of it from much further S. viz. in Kern Co., And Muir testifies that there also, there are some exserted-bracted cones, some included (magnifica) and some intermediate. In latter forms the fertile branches of old trees bear very short leaves.

About Pinus there is nothing more to tell you. The ponderosa – Jeffreyi – question is a formidable one; but one seems forced to take the view you do, that all must sink under one species.

This is enough for to-day! other matters in due time.

We wished to go via St. Louis & ~~tell And~~ talk over these things. But it could not be.

Yours ever. A Gray

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

Rec'd Oct 12th

Cambridge 9' Oct, 1877

Ans same day

Nyssa flava in Company [illegible]

Dear Engelmann

Hooker (who took up every moment — naming his plants &c.) off Saturday, and the other most pressing matters seen to — and now let me write a little to you.

I have not collected much — only special things — Hooker did much more.

You ask about Oaks.

We can really not help you at all, tho. we have learned some little for ourselves.

We took with us, as ~~your~~ our Bible, your little oak paper. and have nothing to say against it.

I cannot say that we ever traced Q. vacciniifolia Kell. into Q. chrysolepis; but we can believe it. We distinguished Wislizeni from agrifolia. We were too hurried at Chico — where we might

You have (Californian) Euphorbias, to do for Watson, as soon as the Oaks are off your hands.

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

have done something
with White Oaks — to do
anything; and as to the
few specimens we brought
home, we have here no
Calif. specimens for comparison
— you having them all;
So as to lobata, Douglasii,
+ Garryana, I cannot say
what is what, nor if they
run together.

There is a Dwarf Oak,
Muir says a form of
lobata, growing (like Q.
ilicifolia, or ~~rath~~ rather the
dwarf Mirus) all along
a region of upper Sacra-
mento, ~~where~~ where we could
barely g grab for it — but
stopping before we reached
Sisson's (Shasta)
The 1st acorns we got were
quasi-obovate — oval, & larger). But
when we ~~ge~~ got them again.

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI
BOTANICAL
GARDEN

they were all dry. If the little seed I got is worth sending you shall have it.

About *Pinus*. When you get at them for Watson's Calif. Botany, perhaps I had best send you all we have, Cones also. — as ~~there~~ will be a parcel to ~~send~~ send*. No bits can be of much use.

I have just been wiring up the cones which were *amabilis* (*magnifica*) into *nobilis*, as we (following Muir & Lemmon) suppose

---

* I have a duplicate of Bentham's *Mimoseae* (folio) a 1/2 vol. of Fl. Brazil, which I propose to give you, if you will take it.

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

Rec'd Oct 12th 1877

I have 4 cones for my part — ~~some of them~~.
Not one with so long, so lacerate or so cuspidate bracts as in the figure of nobilis, and none with the bracts wholly out of sight and wholly shorter than scale as in magnifica.
I send scales & bracts from 3 cones.

A. grandis, L.

I have found in the herbar. here the ~~Mendocino~~ Mendocino specimens of what you take for real A. grandis. I was suspicious of them, from Bolander's account, as of a few trees only, close on shore, and a diff. form back in the woods. The specimens show that they are much affected by bleak exposure, and they cannot well be the kind of thing Douglas got on the Cascade Mts.

From your description of the true grandis as like A. pectinata — ~~leaves~~ green above,

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

&. — I thought the lowest form, i.e, woods around base of Shasta would be it. But it runs clearly into the circular form.

Here is a sprig from a sterile tree — and scale from 2 diff. cones.

Comparing the A. *sub=alpina* with fresh A. balsamea here, it seems diff. — & the scales ~~broader~~ wider. &.

I wish you would let the name *lasiocarpa* drop, Your subalpina is so diff. from Hooker's character, and otherwise it has been so confused. Then, if ever you get leaves of subal=pina as long as Hooker says, I give up the species and join Hooker in saying I can't tell it from *concolor*.

As to *A. Engelmanni*; the extremes of that & *Menziesii* are most different. But as in the mountains, so here with the cones, &c. they do seem fully to run together.

I *did* see plenty of the blue-white *Menziesii*. Most young trees had it more or less. But only one wild young tree so *very* white.

I have not yet sorted out my small collection. When I do I may have things to send you.

We had found out the P. Pinaster. They said it was a Californian tree.

I wish we had gone on to Oregon. We would, if we had known of the *week* more.

No more to-day. Sargent is away for a week: too late to get your letter before starting. Ever yours A. Gray

Rec Oct 17th
Ans same day

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Oct. 13 1877

My Dear E.

Looking over my letters I come on yours of Aug. 30 –

I note in it that Brandis's sea-coast Mendocino Abies cannot be what you take for true grandis – because in your letter now before me you mention that its leaves are thinner than in concolor, I suppose therefore you have in view the tree we found at base of Shasta &c – and I think you will be ~~unable~~ unable to separate that from the Californian concolor,

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

I have good cones of it — to lend — or divide — when you take up the study of the Calif. Pines. &c

Do you really know anything which answers to Balfouriana?

Surely P. aristata is not found in the Shasta region — else I should think they had an aristata cone with the awns knocked off.

I think I wrote you that we had Lemmon with us at Truckee & Tahoe for 2 days. He was rather reasonable & lucid.

Prof. Hilgard of the University we saw at Berkeley for a short hour, and he was very obliging to us.

Ever yours

Asa Gray

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

Rec'd Oct 24
Ans same day

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Oct. 20 1877

Dear E.

Hooker made Queenstown only Thursday morning. — must be home now —

Love of 15. in ten-day —

I send you foliage (from spec. with cone) of Bolander's Mendocino Fir, — and from stam. ~~that of~~ branch of same; Also leaves from specimen "Vancouver's Island, Kellogg." sterile specimen. See what you make of the leaves.

When you want them I had better send you all my Calif. Fir material similarly, like ourselves, I see that found Abies nobilis only with less long & prominent bracts than Douglas's &c —

There are 2 mountain species without counting subalpina), & you must see if you can make out a low-country grandis distinct from your concolor.

So there is a Balfouriana.
I thought it a myth. —
But true aristata aristata
was found by Kellogg east of
Owen's valley in California —

I am going to send your
letter to Hooker. —

— Shall be glad of the
Oaks

When shall I get at
Synopsis again? Inter
sole? I hope soon.
But I had to name Astragali,
Compositae, & Gamopet. of
Palmer's small but nice
this-year collection. And
out of a dozen & half of
Astragalus species 10 I
had to call new species!!

"How does Mrs. Gray
come on after the fatigues
of that overland trip?" —
Excellently, and no fatigue
to speak of; but much en-
joyment! She likes it well.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

I had only 2 upsets at all. — the first in the cars, from Mrs. Engelmann's *over feeding me*.! The second from want of proper wrapping the last day in California — going up a frosty morning from Truckee to L. Tahoe.

Some day you must have a picture of our Camp on LaVeta Pass. I wish there could have been one of the Shasta Camp, & the Bidwells'

When Mrs. Gray gets a chance, she will write to Mrs. Engelmann *all about* the latter part of our travels.

Oh. Bolander. — I thought I had told you. He acted queerly, and I was privately told he has taken to *drink*, &

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

is as good as gone! A
sad pity,

Yours ever

A. Gray

Rec Nov 4th

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Oct. 28 1877

My Dear Dr. Engelmann

Let this introduce — if he needs introduction — my wife's nephew, P. T. Jackson, Jr. who is coming to live in your city — at least to try. I wish him to know George — a most desirable acquaintance for him.

He goes at 24 hours notice — and as for me no notice, till his trunk had been sent in to the Depot in Boston. So I can't load him with things for you as I could wish. But I'll be sending a box soon — as soon as you get working the Conif. of California. —

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

If all goes well, Jackson's wife & two little boys — Mrs Gray's grandchildren whom her soul loveth — will be coming next year, tell Mrs. Engelmann.

Thanks in advance for your taking Jackson by the hand and giving him somebody to know, and I remain

Sincerely Yours

Asa Gray

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI
BOTANICAL
GARDEN

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

The real P. aristata coll. by Kellogg, in Mts above Owens valley, Calif. is in Acad. San Francisco Museum, with P. flexilis.

Dear E.,

Lemmon did not send to me his article — afraid.

Do send it, please —

I will write soon.

I have asked Dr. Hayden to send you the picture of our camp — for Mrs. E.

A.G.

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

POSTAL CARD.

U.S. POSTAGE
ONE CENT

BOSTON
OCT
28
5PM
MASS.

WRITE THE ADDRESS ON THIS SIDE—THE MESSAGE ON THE OTHER

RECEIVED
OCT
30
9P.M.
ST. LOUIS, MO.

Dr Geo. Engelmann
3003 Locust St.
~~St Louis~~
St. Louis
Missouri

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

Recd Nov 14 77
ans same day

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Nov. 10. 1877

My Dear E.

I send you the half of Hooker's letter which tells of his inspection of the Calif. Pines & Firs growing in Kew — hard to read, but you will make it out, by degrees.

It seems they have a A. Grandis which answers to yours. —

Return the letter — to be kept with its other half —

Has Dr. Hayden sent you a photograph of our Camp on La Veta Pass. — And. if not do you want it?

0 1 2 3 4 5 6 7 8 9 10 cm copyright reserved
MISSOURI BOTANICAL GARDEN

I have not *yet* reached the Conifers in taking care of my little collection— When I do, I think I can send you leaves of Shasta *concolor* which have a section like the Mendocino one.

Thanks for Lemmon's account. An odd misconception in it about *grandis* — meaning *amabilis* or *magnifica*.

Yes, Parlatore died suddenly. I heard of it in California — or as I got back, in the Journals.

I do hope on Monday (this is Saturday) to get settled down to my regular work on Flora again — a long & *sad* interruption!

Ever Yours Asa Gray

0 1 2 3 4 5 6 7 8 9 10 cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec Nov 29th
ans Dec 15

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Monday, 26. Nov. 1877

Dear E.,

I return Hooker's letter — the Notice decyphered.

The "great age" of Pinus albicaulis on Shasta — & of Juniperus on Sierra Nevada is judged merely from the fine-ness of the rings in small branches, & from the size of base of the gnarled or low trunks.
I think the statements rather rash — as put in Nature of Oct. 25. —

"Sand-blasted" — old & weathered surfaces smoothed & striated on base of trunks — Hooker said by sand driven by wind. Considering there was little sand about, I doubted, & still doubt.

I will write fuller soon, I hope soon

will you now take up the Pinus for Calif.

But, !

Watson has begun printing.

Ever

A. Gray

Rec'd Dec 5
ans — 15

Dear Engelmann

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

~~Nov.~~ Dec. 2 1877

Pat. Jackson is back here for Thanksgiving. When he returns to St. L. (soon) I hope he will be able to take at least the vol. of Miscellanea for you. And if you wish to retain longer my Calif. Oaks, I must ask him to take also the feeble few which Hook. & I collected, which I cannot name here altogether till I get the Herb. Specimens.

Young Jackson is rather slippery about carrying parcels, I fancy.

You & Hooker — corresponding directly — must settle about the

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Conifers, & I suppose you soon will.

Aspidium trifoliatum has, I think, come from Florida—

I suppose you see Nature ~~see~~, Oct. 25, has Hooker's portrait & biography—also a promised—too promised article by him, which Dana—without my knowing, is reprinting in Sill. Journal.

I have been writing so much I can't write plain at all—& so stop.

Ever Yours A. Gray

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN